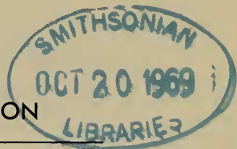


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON**BATHYCONCHOECIA DEEVEYAE, A HIGHLY
ORNAMENTED NEW SPECIES OF OSTRACODA
(HALOCYPRIDIDAE) FROM THE PERU-CHILE
TRENCH SYSTEM**

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Deep-sea benthonic organisms were collected from the Peru-Chile Trench System on Cruise 11 of the R/V *Anton Bruun*, which was sponsored by the National Science Foundation. Among the ostracods was a single specimen of a most unusual halocyprid ornamented with 7 long spines. This new species is described below.

SUBORDER HALOCYPRIDINA

HALOCYPRIDIDAE

Bathyconchoecia Deevey, 1968

Type-species: Bathyconchoecia paulula Deevey, 1968.

Appendages of the new species described herein differ from those described in the diagnosis of the genus by Deevey (1968) in several characters. The most important of these is the presence of only 6 claws on the furca instead of the usual 8. Because the presence of only 6 furcal claws is probably a juvenile character, the present species is included in *Bathyconchoecia*.

***Bathyconchoecia deeveyae* new species**

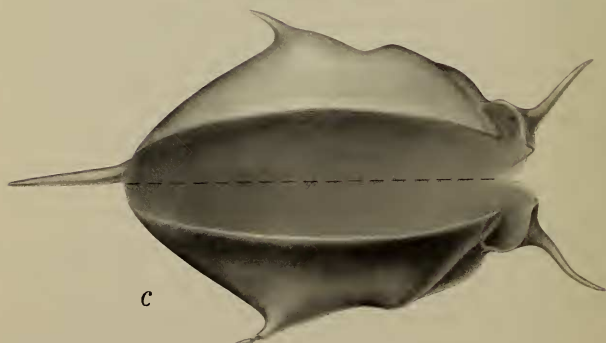
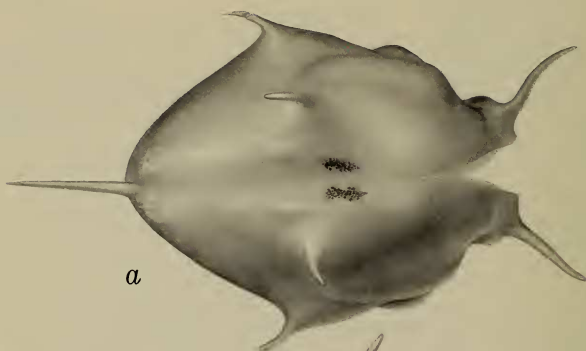
Plate 1, Figures 1, 2

Holotype: USNM 123335; carapace preserved in alcohol; appendages on slide in glycerine; specimen unique.

Type-locality: Pacific Ocean, 07°53'S, 80°30'W; Bottom depth 520 m; Station 85, Cruise 11, R/V *Anton Bruun*, 14 October 1965; collected in benthic trawl, 520 mesh net, by Dr. R. J. Menzies.

Etymology: The species is named for Dr. Georgiana B. Deevey.

Description of juvenile: Shell surface with minute pits which are especially apparent under phase illumination (fig. 1a); incisure deep with rounded inner margin; rostrum with pointed tip extending in front of and



below incisure, and bearing long hollow spine; long hollow spine also present at dorsal margin on posterior of right valve; each valve with short spine near dorsal margin anterior to valve middle, and short spine near valve middle below its center; asymmetrical glands present symmetrically near posterodorsal corner of each valve.

Size: Length without spines—1.12 mm; length including spines—1.61 mm; height without spine 0.89 mm.

First antenna (fig. 1d-f): Shaft short with segments indistinct on examined specimen. Brushlike structure on 3rd segment with about 148 filaments in about 8 rows, each with 18 filaments. Long stout spinous bristle present distal to brushlike structure. End segment with 1 long and 2 shorter bristles or filaments, latter bristles about same length as spinous bristle of adjacent segment.

Second antenna (fig. 1g-j); Endopodite; 1st segment with 2 distodorsal bristles; end segment or segments with a total of 5 setae and filaments. Exopodite: distal margins of 3rd and 4th segments with comb of fine teeth; bristles of segments 2-8 with sparse natatory hairs; 9th segment with 3 bristles, 1 long, 1 medium, 1 short.

Mandible (fig. 2a-e): Coxa pars incisiva with 5-6 teeth present on fingerlike posterior process; a single small tooth present anterior and proximal to large anterior tooth of pars incisiva; proximal tooth list furnished with 4-5 saw-like teeth; distal tooth list furnished with 8-9 teeth; anterior corner of coxa with spinous short, stout bristle; numerous long spines present between bristle and proximal tooth list. Basale: distal edge of endite with 6 large triangular teeth followed by 2 recurved processes; anterior edge of endite with 1 long bristle; lateral surface of endite with 3 long bristles; single medial bristle present on segment; 2 transparent bristles with marginal hairs representing exopodite (?) present near dorsal margin of segment. Endopodite: 1st segment with single distodorsal bristle and 2 ventral bristles near middle; 2nd segment with 3 distodorsal bristles and 1 ventral bristle; end segment with 7 bristles, 4 short, 2 medium, and 1 extremely long; fine hairs present on medial surface of end segment.

Maxilla (fig. 1k-m): Precoxale endite with 6 bristles; coxale endite with 12 bristles, 6 on each lobe. Endopodite: anterior margin of 1st segment with 1 bristle near middle and 4 distally; posterior margin with 3-4 bristles proximally and 1 distally; end segment with 2 short stout curved claws and 4 short slender bristles between the claws.

Fifth limb (fig. 2f): Exopodite: 1st segment with extremely long bristle on dorsal margin reaching past bristles on end segment of exopodite; 2nd segment with 2 bristles near middle of ventral margin and 1 on dorsal margin; end segment with 2 clawlike bristles and 1 slender bristle. Endo-

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PLATE 1.—*Bathyconchoecia deeveyae* Kornicker, carapace, total length 1.61 mm: a, dorsal view; b, right lateral view; c, ventral view. (Illustration prepared by Carolyn Bartlett Gast.)

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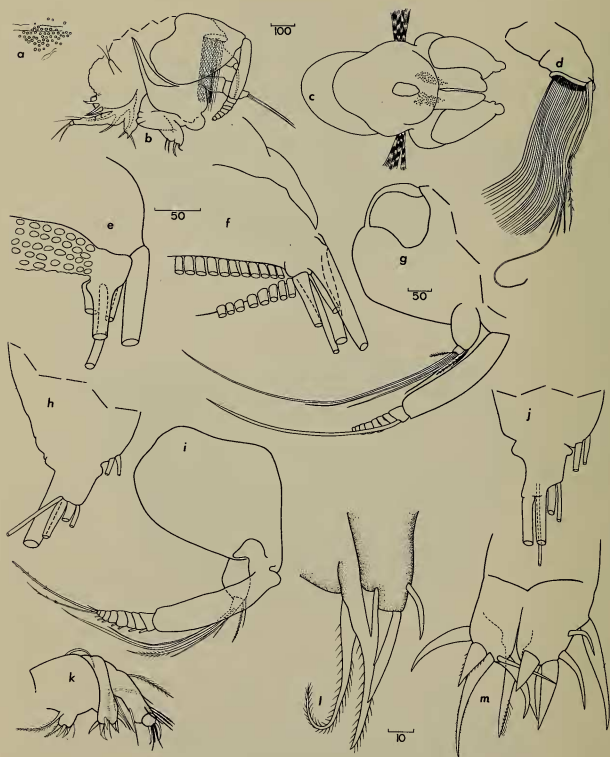


FIGURE 1.—*Bathynconchoecia deeveyae* Kornicker, USNM 123335: a, detail of surface pits on carapace in antero-dorsal area near hingement; b, sketch showing position of appendages, anterior to right; c, dorsal view of "c", anterior to right. First antenna: d, complete limb; e, f, distal ends. Second antenna: g, left limb, medial view; h, distal part left endopodite, medial view; i, right limb, lateral view; j, distal part right endopodite, lateral view. Maxilla: k, complete limb; precoxale endite; l, coxale endites, anterior to right. (Same magnification, in microns: a; b, c; d, g, i, k; e, f; h, j, l, m.)



FIGURE 2.—*Bathypochoecia deeveyae* Kornicker, USNM 123335, mandible: a, complete right limb, lateral view; b, detail of basale and coxale on "a"; c, left mandible, medial view; d, detail of basale of "c", medial view. Posterior limbs: f, 5th limb; g, 6th limb; h, 7th limb; i, right lamella and middle bristle of furca. (Same magnification, in microns: a, c, f, g, i; h; b, d, e.)

podite with 2 claw-like bristles. Epipodial appendage with 12 bristles in 3 groups of 4 bristles separated by a space.

Sixth limb (fig. 2g): Exopodite: 1st joint with 3 short bristles and 1 extremely long distodorsal bristle reaching just past bristles of 4th joint of

exopodite; 2nd joint with 2 distoventral bristles; 3rd joint with 1 ventral and 1 dorsal bristle; 4th joint with 3 long bristles, ventral bristle more slender than others.

Seventh limb (fig. 2h): End segment with 2 long subequal bristles.

Furca (fig. 2i): Each lamella with 6 claws; claw 1 longer than claw 2; claw 2 only slightly longer than claws 3-6; a long spinous bristle present between lamellae following last claw; surface of lamellae with short spines.

Pigmentation: Areas with black pigmentation present in preserved specimen posterior to 1st segment of each 1st antenna and anterior to heart (pl. 1a, fig. 1c).

Rod-shaped organ: Not observed with certainty.

Ecology: The specimen was collected on the bottom at a depth of 520 m. A hydrocast (No. 84; 07°50' S, 80°29' W; 13 October 1965) obtained by the R/V *Anton Bruun* in the vicinity of Station 85 where the ostracod was collected gave the following water properties at depth of 500 m: Temp.—7.74°C; Sal.—34.637 parts per thousand; O₂—0.15 ml./l (Menzies and Chin, 1966).

Comparisons: The spinosity of the carapace separates this species from other members of the genus.

LITERATURE CITED

- DEEVEY, G. B. 1968. *Bathymconchoecia*, a new genus of pelagic ostracod (Myodocopa Halocyprididae) with six new species from the deeper waters of the Gulf of Mexico. *Proc. Biol. Soc. Wash.*, vol. 81, pp. 539-570, 13 figs.
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